

Step by step

Further processing

TOWNSEND
FURTHER PROCESSING

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- Meat preparation
- Portioning
- Coating
- Frying
- Cooking

Meat preparation

Whether you need to cut, grind or mix or you would like to analyse the fat content of your meat mass, we have the exact equipment for your specific needs. If you are processing meat according to a particular recipe – with added ingredients, a certain temperature, a defined viscosity – we can supply the systems you require. From beginning to end, across an endless range of possibilities, our systems can prepare your meat mass in a hygienic, user-friendly, efficient and high quality manner.

We have partnerships with reliable meat preparation equipment suppliers, together with whom Townsend Further Processing can make it possible for you to prepare any meat mass in a way that suits your needs and specifications.



Portioning

A perfectly portioned product is the right starting point for an attractive snack, a tasty meal component or ready-made meal. Portioning your mass into products is a possible first step in your further processing process. Of course you want products that keep their consistency, products that are accurate in weight and shape. And for most processors flexibility and the ability to produce a wide variety of products are crucial.

Townsend Further Processing offers various portioning systems for low pressure portioning and high pressure forming. High pressure forming gives you the option of producing a wide variety of quality products at an attractive price. Low pressure portioning enables you to produce high quality products whilst retaining the structure and texture of the raw material.

PlateFormer, high performance at high pressure

Our PlateFormer can produce a large number of different products such as nuggets, schnitzels, croquettes or hamburgers with minimal weight variation. The portioning plates can be changed quickly making for short changeover times. PlateFormer offers you an efficient and cost effective production method.



PlateFormer, a solid basis for all your formed products.



PlateFormer – how it works

To form products, the hopper is filled with a meat mass, which is then brought to a pressing block. The pressing block presses the mass into the forming plate. The formed products are discharged onto a transport conveyor, ready for the next step in the process. There is a variety of forming plates, enabling you to produce all kinds of different products.

PlateFormer benefits

- Production of products with minimal variations in weight
- Wide variety of shapes and products possible
- Accurate forming
- Easy changeover to new products.

Coating

RevoPortioner, perfectly low pressure portioned products

Our RevoPortioner makes perfectly portioned products at low pressure whilst retaining the texture and structure of the raw material. RevoPortioner can process beef, poultry and meat mixes as well as non-meat products. Each product will always have the same shape, weight, size and be of uniform quality. The system releases products using only air. This leads to better product consistency and quality and an optimum control of the remaining processing steps. There is virtually no leakage of the mass.

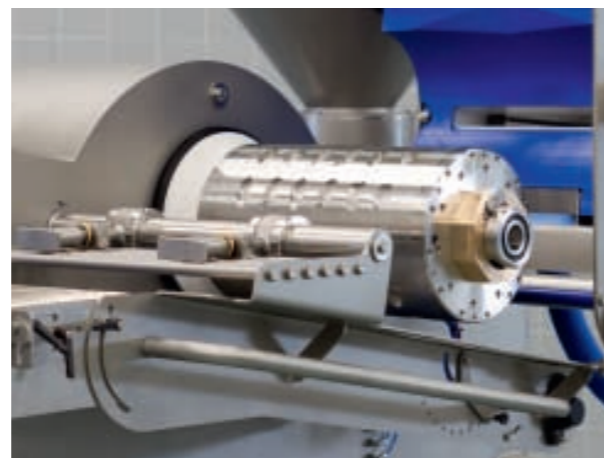
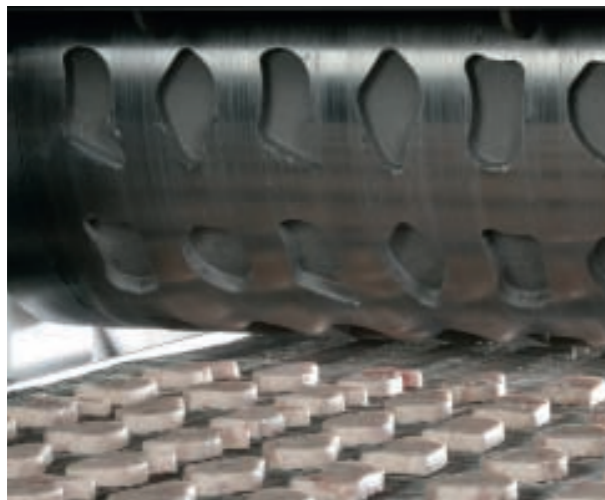
RevoPortioner – how it works

From the integrated pump product mass is brought at low pressure into the distributor housing. There the cavities on the continuously rotating portioning drum are filled with product mass. A pressurized side plate keeps the filled cavities under pressure ensuring consistent product shape. At the blow-off position the portioned products are blown from the portioning drum using air. Products move on a discharge belt to the next process step.



RevoPortioner benefits

- Suitable for all kinds of protein mass
- Preserves texture and structure and gives the best possible mouth feel
- Consistent, highly accurate shape and weight
- Very low maintenance costs
- No water necessary for (sticky) product release, which benefits quality.



A coating influences your yield and will largely determine the bite, taste and presentation of your end products. Attractive presentation of your end product can convince consumers to buy it.



A coating adds value to your product

Coating enhances taste and texture and increases yield. It also protects products from damage during freezing. With a coating, your products look good. The number of possible coatings is many. Will your choice be for wet or dry, or rather a combination of both? The process sequence will depend on the end product you choose. Regardless of which coating you choose, Townsend Further Processing is able to supply the appropriate system for virtually all types of coating.

■ Flouring

Flouring is a possible step towards really attractive end products. A fine layer of flour serves as an adhesive allowing other coatings to adhere better. It sounds simple but working with fine flour particles is a science all of its own. Townsend Further Processing has mastered this material and has used this knowledge to develop FlourApplicator, a flouring machine, which works to high standards of accuracy.

FlourApplicator for a fine layer of flour

FlourApplicator from Townsend Further Processing brings flouring to a higher level. The machine allows you to regulate exactly the amount of flour required. FlourApplicator can be used to flour a wide variety of products.



FlourApplicator – how it works

The machine transports product on a belt covered with flour. This belt can operate at different speeds. The flour is brought to a distribution plate with a vibrating sieve allowing the creation of uniform layer of flour on the product. The amount of flour can be set differently for different products. The machine removes excess flour and where possible reuses it.

FlourApplicator benefits

- Suitable for a wide range of products
- Ensures perfect flour distribution
- Removes excess flour and reuses excess flour
- Easy to operate and clean.

■ Battering

Without additives starch will not adhere to proteins; breading will not adhere to a natural product. An additional layer of coating is therefore needed on those products, which contain both starch and proteins. A layer of batter will ensure that breading adheres properly to the product.

BatterApplicator, for an optimal adhesive layer

BatterApplicator applies a batter solution to your products. This layer is applied to a wide range of products such as schnitzels, fillets, cutlets, burgers, chicken fingers, but also to bone-in products like a drumstick.

BatterApplicator – how it works

A belt conveyor transports products through the battering machine. The underside of the product moves through a batter solution. At the same time a maximum of four batter curtains moisten the sides and top of the product. Excess batter is removed immediately and reused.



BatterApplicator benefits

- Suitable for a wide range of products
- Ensures excellent batter distribution
- Removes excess batter for an optimal end product
- Reuse of excess batter
- Easy to operate and clean.

■ Breading

Uniform distribution of crumb over the product whilst retaining the structure of the crumb, that's what it's all about! Breaded products look attractive with either a coarse or fine layer of crumb. In addition, that crunchy layer will contribute to the tastiness and structure of your products.

BreadingApplicator, for a carefully applied layer of breading

A Townsend Further Processing breading machine is suitable for a wide range of portioned and bone-in products. After breading, your products will have a layer of crumb on all sides.

BreadingApplicator – how it works

An auger distributes crumb over the width of the belt conveyor. Product is then placed onto the belt and a layer of crumb is applied to the upper surface and sides. A pressure roller or vibrating plate ensures optimal adhesion. BreadingApplicator then removes any excess crumb from the product.



BreadingApplicator benefits

- Suitable for many different products
- Ensures excellent crumb distribution
- Removes excess crumb to give an optimal product
- Reuse of excess crumb
- Easy to operate and clean.

Frying

■ The application of tempura

Tempura is a highly viscous batter. This batter can consist of ice water, flour, salt and egg, into which meat is dipped. During deep-frying, the tempura forms a crunchy crust around the product, which gives it a particular appearance.



TempuraApplicator for a good bite

The tempura machine is suitable for a wide variety of products such as nuggets or tenderloins.

TempuraApplicator – how it works

A belt conveyor transports the product through the batter whilst an upper belt immerses it. A cooling unit keeps the tempura at a constant temperature. Viscosity remains constant and product receives a uniform layer of tempura. Before the product leaves the tempura machine, the machine blows excess batter from the product. Optional star rollers in the outfeed conveyor ensure that product enters the frying oil in a controlled manner.

TempuraApplicator benefits

- Suitable for a wide range of products
- Ensures optimal tempura distribution
- Keeps the tempura at a constant temperature
- Removes excess tempura to give an optimal end product
- Reuse of excess tempura
- Easy to operate and clean.

Frying is an important step in your production process. The coating is fixed and your products acquire their attractive, golden crispy finish and taste.

ValueFryer, value for your money

The ValueFryer offers adequate frying capacity for high production volumes and ensures perfect oil management. It is a high quality machine allowing you to produce continuous top quality products. In a fryer, oil and energy consumption and the ability to process consistently are of the utmost importance and the ValueFryer steps up to the challenge.

ValueFryer – how it works

A conveyor transports the coated products through the frying oil. An upper belt keeps them continuously immersed in the oil. The machine heats up the frying oil electrically or using thermal oil. An oil management system ensures that oil temperature remains constant throughout the whole frying process and together with the energy management system gives you a lower cost of operation.



ValueFryer benefits

- Gives value for money
- Superior oil management
- High capacity
- Uniform and consistent fried products
- Safe and easy operation, cleaning and maintenance.



Cooking

Cooking is another way of adding value to your products. The complete cooking of product in oil results in high oil absorption and in moisture loss. Because of the increasing demand for healthy products, more and more processors choose the combination of deep-frying and oven cooking. Of course you can also cook products without frying, like marinated hot wings.



LinearOven for steaming, cooking and grilling

With LinearOven your products undergo heat treatment in an optimal climate and lose little moisture. In this way meat reaches the required core temperature, becomes tastily crunchy and stays succulent. All of this happens without either weight or thereby yield suffering.

LinearOven – how it works

Using LinearOven you can steam, cook and grill to a high quality level. In the oven products move through a hot air tunnel, which consists of two compartments. Fans ensure optimal and uniform airflow, so that all sides of the product brown equally. By injecting steam you can regulate air humidity. With LinearOven you can cook not just portioned and coated products, but drumsticks and spare ribs too.

LinearOven benefits

- Suitable for cooking, grilling and steaming
- Optimum airflow control ensures high weight yield
- Cooks and colors product uniformly
- Suitable for the cooking of all kinds of products
- Delivers consistently high product quality.

Freezing

In order to protect and preserve the quality and freshness of your product over a longer time, freezing is an important next step in your production process.

Fast, efficient freezing...

We provide a wide variety of freezing solutions using the latest advancements in freezing technology in order to meet your demands for higher quality end-products. Our freezers range from upwards/downwards running Spiral Freezers to Superflow Easyclean Tunnel Freezers with impingement technology. Our continuous innovation in freezing technology has enabled us to constantly develop new space-saving, energy efficient and more importantly, cost-effective freezing concepts which allows you to focus on what matters the most – maximizing your profit potential.



Freezing – how it works

The patented Superflow Easyclean Freezers freeze the product in a uniform manner, in the fastest possible time. On the conveyor belt, the product is led past the high velocity impingement airflow called Superflow®, which is a turbulent vertical airflow that blows the air stream directly on to the product where after the air stream will change direction, becoming a combination of vertical and horizontal airflow, before returning back to the evaporators. The rapid horizontal airflow - Arcticflow® is another one of our innovations in freezing concepts. In this configuration, the end-product is led past high horizontal airflow which directs the air over and under the products and continuously through the evaporators. The low temperature associated with Arcticflow® ensures a rapid and homogenous freezing resulting in a fine quality end-product.

Freezer benefits

- Shorter freezing times
- Less product weight loss
- Less energy consumption due to the horizontal airflow principle
- Less downtime due to minimum defrosting requirements
- Less water consumption.



Batching

During the batching process, your finished products will be mixed and weighed into portions that can be packed into a wide variety of packaging.

Multihead Weiger for reliable batching

The Multihead Weiger deals with all infeed, mixing and weighing requirements. It automatically portions and packs food products into virtually any kind of tray, thermo pack, bag, can, glass or box.

Multihead Weiger – how it works

The infeed transports your product to the top of the Multihead Weiger, where vibrating feeders dispense it gently into the weighing hoppers. The hoppers will by combination create exact portions, after which they will be packed.

Multihead Weiger – benefits

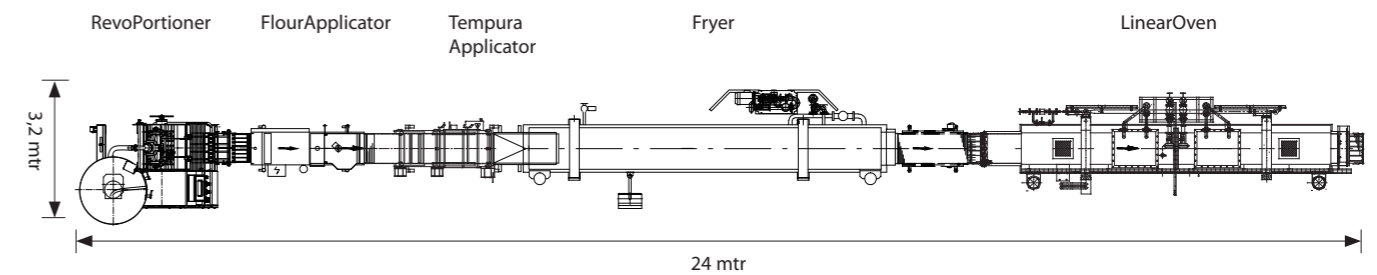
- Suitable for a wide range of products
- Extremely low giveaway
- Low maintenance
- Very hygienic
- Easy to operate and clean.



At your service

When you choose Townsend Further Processing you choose for a future of operational reliability. Townsend Further Processing always stays closely involved with its customers and thinks along with them about production processes and end product possibilities. Townsend Further Processing can train your staff, offers tailor-made maintenance contracts and is available to you 24/7 via its expert help desk. It has a worldwide network of supporting technologists and service engineers.

Townsend Further Processing would welcome your visit to its DemoCenter in Boxmeer in the Netherlands. Here we are able to mimic your production facility under the guidance of our food and process technologists and a professional master chef. We give you an insight into various products and production processes, which we will demonstrate live to you.





Contact details

Townsend Further Processing

Design, manufacture, worldwide sales and service of further processing systems for portioning, marinating, coating, heat treatment and sausage-making for poultry, red meat, and fish.

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